BLM

Sierra Front Field Office, Nevada

Virginia Mountains Vegetation Treatments Project

DRAFT Finding of No Significant Impact

DOI-BLM-NV-C020-2015-0034-EA

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NATIONAL SYSTEM OF PUBLIC LANDS
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Background

The Bureau of Land Management (BLM), Carson City District, Sierra Front Field Office is proposing a vegetation treatments project in the Virginia Mountains area north of Reno and west of Pyramid Lake in Washoe County, Nevada [Figure 1 of the draft Environmental Assessment (EA)]. The Virginia Mountains Vegetation Treatments Project (Project) is to implement treatments on approximately 22,388 acres of public lands managed by the BLM. The Project Area[1] is approximately 22,528 acres (Figure 2 of the EA). The BLM has used a landscape-level approach to identify and prioritize treatment units. The Planning Area[2] is approximately 193,213 acres (Figure 3 of the EA). The Project would be implemented over a 10-year period. Implementation of the Project would not be anticipated to occur until 2017. Due to seasonal restrictions for wildlife, most treatments would occur during the late summer and fall. Approximately 2,000 to 3,000 acres would be treated each year.

Vegetation management treatments are needed to restore ecological balance, diversity and resilience to plant communities, and reduce hazardous fuels to protect people, property, infrastructure, and resources from severe wildfire. Wildlife habitat quality is diminishing due to woodland expansion and is threatened by heavy accumulations of fuels that greatly increase the potential for large, high-intensity wildfires. Historically, periodic wildfires maintained a healthy balance of vegetation types and prevented fuels from accumulating; however, the existing patterns of vegetation are not conducive to favorable effects from fire without the intervention of proposed treatments. Hazardous fuels currently need to be managed to protect vegetation from uncharacteristic, severe wildfire.

A sage-grouse (*Centrocercus urophasianus*) habitat matrix links relative resilience and resistance of sagebrush ecosystems with sage-grouse habitat requirements for landscape cover of sagebrush to help decision makers assess risks and determine appropriate management strategies at landscape scales. It provides guidelines to identify effective management strategies/actions and habitat restoration needs across four primary federal agency program areas: fuels management, fire operations, habitat restoration/recovery, and post-fire rehabilitation. Using this approach, the Greater Sage-Grouse Wildfire, Invasive Annual Grasses, and Conifer Expansion Assessment was developed. This assessment is referred to as the Fire and Invasive Assessment Tool (FIAT) Report. The Western Great Basin/Warm Springs Valley assessment was developed using methods described in the FIAT Report. As part of the FIAT process, the Virginia Ranges project planning area (PPA) was identified. Approximately 71,000 acres of the PPA is included within the Planning Area for this Project (Figure 4 of the EA).

Altered disturbance regimes and climate change have resulted in major changes in plant community compositions. Since the 1850's, many bunchgrass and sagebrush-bunchgrass (*Artemesia* spp.-*Poaceae* spp.) communities, which dominated the Intermountain West, have

[1] In this document, the term "Project Area" consists of approximately 22,388 acres of BLM land identified for site-specific analysis in this EA. The Project Area also includes approximately 140 acres of private lands, however no Project activities would occur on private lands.

[2] In this document, the term "Planning Area" consists of approximately 170,698 acres of BLM land used to identify treatment units and determine which resources are likely to occur in individual treatment units. The Planning Area also includes approximately 22,515 acres of private lands, however no Project activities would occur on private lands.

shifted to woodlands or introduced annual dominated communities. Although woodlands have increased dramatically in the last 150 years, they currently occupy far less than they are capable of under current climatic conditions. Woodland expansion affects soils, vegetation structure and composition, water, nutrient and fire cycles, forage production, and plant and wildlife biodiversity.

There are three transitional phases of juniper (*Juniperus* spp.) woodland development:

- Phase I – Trees are present but shrubs and herbs are the dominant vegetation that influence ecological processes (hydrologic, nutrient and energy cycles) on site.
- Phase II – Trees are co-dominant with shrubs and herbs, and all three vegetation layers influence ecological processes on the site.
- Phase III – Trees are the dominant vegetation and the primary plant layer influencing ecological processes on the site.

An increase in tree dominance results in a loss of understory vegetation, and fires in dense woodland could be extremely difficult to control and very damaging to healthy woodlands, sagebrush, and herbaceous vegetation. Goals of woodland management include an attempt to restore ecosystem function and a more balanced plant community that includes shrubs, grasses, and forbs, and to increase ecosystem resilience to disturbances. Wildlife species such as mule deer (*Odocoileus hemionus*) depend on woodland landscapes that have multi-aged stands with a more open canopy and park-like structure with a robust understory of forbs, grasses, and shrubs. In highly dense woodland stands, the understory vegetation is eliminated over time.

Determination

On the basis of the information contained in the *Virginia Mountains Vegetation Treatments Draft Environmental Assessment* (DOI-BLM-NV-C020-2015-0034-EA), I have preliminarily determined that the Proposed Action does not constitute a major federal action having a significant effect on the human environment. Therefore an environmental impact statement (EIS) would not be required.

This finding is based on my consideration of the Council on Environmental Quality (CEQ) criteria for significance (40 CFR 1508.27), both with regard to the *context* and *intensity* of the impacts described in the draft EA, which is hereby incorporated by reference.

Context

The Planning Area is in the Virginia Mountains located in Washoe County, Nevada. The topography of the range varies from rolling hills, approximately 4,000 feet in elevation, to over 7,500 feet in elevation at the tops of the tallest peaks. Vegetation is typical of the western Great Basin and is dominated by a mix of grasses (*Poa* spp.), sagebrush, rabbitbrush (*Chrysothamnus* spp.), bitterbrush (*Purshia tridentata*), and juniper trees. Average annual precipitation is strongly influenced by elevation and varies from 6 to 16 inches.

The life of the Project is anticipated to be approximately 10-years. Depending on the availability of funding, the BLM anticipates treating approximately 2,000 acres per year, with most of the treatment activities occurring in late summer to fall. Over the life of the Project, treatments

would occur on approximately 12 percent of the Planning Area, used in determining areas to be treated. Each year approximately one percent of the Planning Area would be undergoing treatment.

Intensity

1) Impacts that may be both beneficial and adverse.

The analysis contained in the draft EA describes effects in terms of short-term and long-term, beneficial and adverse. No "significant" effects were identified in the draft EA. As defined in Section 4.1.1 of the draft EA, the word "adverse" has been used in characterizing minor, non-significant detrimental effects to a resource, and the word "negligible" has been used in characterizing minor, non-significant detrimental effects to a resource that are generally undetectable. Beneficial and adverse impacts caused by the Proposed Action are briefly described below by resource:

- Cultural Resources. No adverse effects to historic properties would occur due to resource commitments described below. Any reduction in the likelihood of large-scale wildland fire would benefit historic properties present.

- Native American Religious Concerns. Potential adverse effects to traditional uses would be avoided or minimized through on-going coordination with Tribes in accordance with an approved Programmatic Agreement (PA), during each phase of the Project. Any reduction in the likelihood of large-scale wildland fire would benefit traditional uses in the Planning Area.

- Wetlands/Riparian Zones. Short-term adverse effects include potential crushing of riparian vegetation and increased potential for soil erosion during Project implementation. Most riparian areas would be treated by hand thinning, which has minimal impacts to vegetation and soils. Juniper would be removed by hand in riparian areas, an adverse effect to juniper, however a beneficial effect to riparian species such as willow, cottonwood and aspen. Those wildlife species that are dependent upon riparian communities would be expected to benefit from these treatments in the long-term.

- General Wildlife, BLM Sensitive Species (Animals) and Migratory Birds. Short-term adverse effects to animals would occur during Project implementation through localized displacement, and potential trampling or destruction of burrows by equipment or foot traffic. Woodland dependent animals would be displaced into adjacent juniper communities. As described in the resources commitments below, most Project activities would not occur between March 1 and August 31, the critical period in the life cycle of many species (breeding, nesting, brood-rearing etc.). In the long-term, animals would be expected to benefit by the reduction in the likelihood of large-scale wildland fire, by maintaining or promoting riparian communities that are undergoing juniper encroachment, and by promoting a mosaic of habitat types and understory species such as grasses, forbs, and shrubs.

- Vegetation and BLM Sensitive Species (Plants). Short-term adverse effects to plants would occur during Project implementation through localized crushing of plants caused

by equipment or foot traffic. As described in the resources commitments below, most Project activities would not occur between March 1 and August 31, the critical period in the life cycle of many species. Surveys for sensitive plant species would be conducted in mechanical treatment units that have high potential for their occurrence based on soil types; when occupied habitat is located, implementation may be delayed, hand thinning of trees may replace use of mechanized equipment, or the occupied habitat may be delineated as an avoidance/exclusion area. In the long-term, plants would be expected to benefit by the reduction in the likelihood of large-scale wildfire, by maintaining or promoting riparian communities that are undergoing juniper encroachment, and by promoting a mosaic of habitat types and understory species such as grasses, forbs, and shrubs.

- Fire Management. The long-term benefits of the Project would be to reduce the risks of catastrophic wildfire and potential adverse impacts to life, property and natural resources. Through thinning, tree density would be lowered and the continuity of flammable vegetation would be altered, which may result in less intense fires.

- Forest Resources. Thinning activities under the Project would benefit forest resources by: reducing the likelihood of stand replacing wildfire; reduce mortality of juniper from insects and disease; and allow for recovery of understory species in high density juniper woodlands. The proposed treatments include making forest products such as firewood available, a beneficial effect.

- Visual Resources. Under the Proposed Action, hand thinning and mechanical treatment of vegetation would occur. Units within VRM Class II would be treated by hand, which is used in areas of low tree density and hand thinning has minimal surface disturbance. Negligible impacts to the visual character of the treatment units in the short-term would be reduced by using the natural patterns on the landscape for treatment boundaries. VRM Classes III and IV allow for greater degree of alteration of the visual character; all mechanical treatments would occur in VRM Class III or IV. Mechanical treatments would cause the greatest alteration to the visual character, primarily through changing the visual density of trees, from high to low.

- Air Quality. Under the Proposed Action, in the short-term there would be a negligible increase in emissions from vehicles and equipment, and from particulates caused by pile burning. Short-term increases in emissions are not expected to change the air quality status of the Planning Area. After implementation, air quality in the Planning Area is anticipated to return to pre-Project levels.

- Wild Horses and Burros. During Project implementation, short-term negligible effects would occur to wild horses through short-term and localized displacement. As described in the resource commitments below, no treatments would occur in the Flanigan and Dogskin Mountain HMAs during the foaling season, generally considered March 1 until July 1. In the long-term, thinning in high density juniper may marginally increase forage available for wild horses, a beneficial effect.

- Livestock Grazing. During Project implementation, short-term negligible effects would occur to livestock grazing through short-term and localized displacement. To minimize any potential adverse effect, the BLM would coordinate with the permittee prior to initiating treatments while an allotment is in use. In order to meet resources objectives of the ARMPA, the BLM may determine it necessary to rest all or portions of grazing allotments or pastures where vegetation treatments occur. Depending on the duration and scale of reductions, the short and/or long-term effects may be negligible or adverse to livestock grazing. In the long-term, thinning in high density juniper may marginally increase forage available for livestock, a beneficial effect.

- Noxious and Invasive Weeds. Short-term negligible effects would occur during Project implementation, as equipment and people have the potential to transport vegetative parts or seeds to new areas. Displaced livestock and wild horses also have the potential to transport vegetative parts or seeds to new areas. Long-term impacts caused by the spread of invasive, non-native plant species and noxious weeds would be addressed through monitoring and treatment (approved under a separate action). In the long-term, the reduction in intensity of wildfire would reduce the potential for spread and infestation by invasive weeds such as cheatgrass, a beneficial effect.

- Lands with Wilderness Characteristics. Vegetation treatments would be expected to have short-term negligible effects on one inventoried LWC unit within the Planning Area. The treatments would be consistent with actions proposed in the ongoing land use plan revision, which would also permit vegetation treatments that would enhance or maintain wilderness character. In the long-term, treatments that reduce the potential for large-scale wildland fire would promote a designated units wilderness characteristics.

- Socioeconomics. In order to meet resources objectives of the ARMPA, the BLM may determine it necessary to rest all or portions of grazing allotments or pastures where vegetation treatments occur. Depending on the duration and scale of reductions, the short and/or long-term effects may be negligible or adverse effects to socioeconomics.

Resource Commitments to Avoid or Reduce Potential Adverse Impacts.
To minimize or avoid potentially adverse impacts, the BLM included resource commitments in Section 2.1.1.4 of the draft EA. Examples of some of the commitments include:

- To avoid potential adverse effects to historic properties, the BLM would complete pre-work surveys (Class III cultural resources inventories) to identify those resources, and establish avoidance/exclusion areas where mechanical treatments may occur;
- To minimize potential adverse effects to sensitive plant species, pre-work surveys would be conducted in mechanical treatment units that have high potential for their occurrence based on soil types; where species are located, implementation may be delayed, hand thinning of trees may replace use of mechanized equipment, or the area may be delineated as an avoidance/exclusion area;
- For any treatment implemented in greater sage-grouse priority habitat management area (PHMA), general habitat management area (GHMA), and other habitat management area (OHMA) the following commitments may apply:

(1) In PHMA and GHMA:
- Seasonal restrictions would be applied during the following periods:
  - In breeding habitat within four miles of active and pending leks from March 1 through June 30;
    - Lek – March 1 to May 15;
    - Lek hourly restrictions – 6 p.m. to 9 a.m.;
    - Nesting – April 1 to June 30;
  - Brood-rearing habitat from May 15 to September 15;
  - Winter habitat from November 1 to February 28;
- Limit noise to not exceed 10 decibels above ambient sound levels at least 0.25 mile from active and pending leks, from two hours before to two hours after sunrise and sunset during the breeding season.

(2) In OHMA implement require design features.

- Potential adverse impacts to migratory birds, raptors and sage-grouse would be minimized through seasonal restrictions. Pre-work surveys for migratory birds or raptors would be conducted if treatments were to occur between March 1 and August 31, considered the critical nesting and young-rearing period; and
- To minimize potential adverse impacts to wild horses that may be displaced during treatment activities, no treatments would occur within the Flanigan and Dogskin Mountains HMAs between March 1 and July 1, generally considered the foaling season.

Severity of Potential Impacts.
Approximately 71 percent of the Project Area would be treated by hand cutting. Compared to mechanical mastication (29 percent of the Project Area), hand cutting would have less severe impacts. Hand crews would involve up to 20 people working in treatment units with saws. Foot traffic would be cross-country in the treatment units, the extent of understory vegetative material that could be crushed or trampled by foot traffic would be negligible. During hand treatments, no roads would be constructed and no motorized vehicles would be used off-road. Treatments may occur over several weeks or months depending on unit size, complexity of terrain and access, and method of treatment.

2) The degree to which the proposed action affects public health or safety.
Implementation of the treatments in the Proposed Action would improve public and firefighter safety by reducing the likelihood of a large catastrophic wildland fire.

3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
The Proposed Action would have no adverse effect on historic or cultural resources because of the resource commitments included in Section 2.1.1.4 of the draft EA, and no effect to prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas (such as Areas of Critical Environmental Concern) because these resources are not present in the Project Area.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The effects of the vegetative treatments in the Proposed Action are well understood and are not highly controversial.

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
There are no known effects of the Proposed Action which are considered uncertain or involve unique or unknown risks.

6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
The Proposed Action does not establish a precedent for future actions with significant effects and does not represent a decision in principle about a future consideration. Any future actions within the Planning Area, if they were to occur, would be subject to separate environmental review and decision-making.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.
To minimize or avoid potentially adverse impacts, the BLM included resource commitments in Section 2.1.1.4 of the draft EA. No significant cumulative effects were identified in the draft EA. Any other actions proposed in the Planning Area would be evaluated as to whether the actions effects added to the Proposed Action would cause cumulatively significant effects.

8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP or may cause loss of destruction of significant scientific, cultural, or historical resources.
Certain treatment methods such as hand cutting do not involve ground disturbance and therefore have a very low potential to adversely[3] affect historic properties. Other methods, such as those that involve mechanized equipment, have the potential to adversely affect historic properties. Due to the phased approach of this Project, anticipated to be implemented over a 10-year period, there is the potential for historic properties to be adversely affected by the treatments. To resolve potential adverse effects, the BLM has prepared a draft PA in accordance with 36 CFR 800.14 (b) (Attachment B of the draft EA). The draft PA defines the methods through which the BLM would identify historic properties and resolve adverse effects for each phase of the Project. Resolution of adverse effects is typically through site identification and avoidance.

9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the ESA or 1973.
No federally listed species under the Endangered Species Act (ESA), or its critical habitat for such species occurs within the Planning Area.

10) Whether the action threatens a violation of federal, State, or local law or requirements imposed for the protection of the environment.
The Proposed Action is in conformance with the Carson City Field Office Consolidated Resource Management Plan (2001). Implementation of the Proposed Action would not violate or

[3] 36 CFR 800.5(a)(1) defines adverse as the "alternation to the characteristics of a historic property that qualify it for inclusion in the National Register of Historic Places in a manner that would diminish its integrity."

threaten to violate any federal, State, or local law or requirement imposed for the protection of the environment.

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Date